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RIG SCORRIER LIMITED

ENVIRONMENTAL PERMIT VARIATION – EPR/DP3892HD/V003

OPERATING TECHNIQUES

AUGUST 2024

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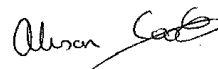
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CONTENTS

1	INTRODUCTION.....	1
2	PERMITTED ACTIVITIES	3
3	PERMITTED WASTES	5
4	WASTE PRE-ACCEPTANCE	9
5	HAZARDOUS WASTE STORAGE	12
6	SOIL WASHING PROCESS.....	13
7	OUTGOING MATERIALS.....	16
8	SURFACE WATER MANAGEMENT AND DRAINAGE.....	17
9	USE AND STORAGE OF RAW MATERIALS.....	19
10	SITE MANAGEMENT	20
11	RECORD KEEPING AND CONTROL OF AMENITY ISSUES	21
12	RECORD KEEPING AND COMPLAINTS	24
13	SITE CLOSURE PLAN	25

APPENDICES

Appendix 1	Hazardous Storage – Proposed Plant Layout
Appendix 2	Asbestos Storage – Proposed Plant Layout
Appendix 3	Scorrier Wash Plant – V4

DRAWINGS

Drawing No.	Drawing Title	Scale
NT16773-001	Section 73 General Arrangement Plan	1:500 @ A1
NT16773-003	Section 73 Drainage Plan	1:500 @ A1
NT16773-005	Leachate Lagoon Sections	As shown on drawing

1 INTRODUCTION

- 1.1.1 RIG Scorrier Limited (“RIG”) have commissioned Wardell Armstrong to prepare an environmental permit variation application for their Parc-an-Chy Site (EPR/DP3892HD/V003).
- 1.1.2 RIG Scorrier Ltd Waste Facility is located on land adjacent to Parc-an-Chy Mine, Treskerby Road, Scorrier, TR16 5AU.
- 1.1.3 The extant permit allows for the acceptance, storage and treatment of up to 74,999 tonnes of soils, stones and aggregates per year. Treatment comprises physical treatment including manual and mechanical sorting/separation, screening, crushing and blending of non-hazardous wastes for recovery as a soil, soil substitute or aggregate.
- 1.1.4 RIG are seeking to vary the existing environmental permit to introduce the following changes:
- Waste washing for the purpose of producing aggregate products and recovering waste by installing a state-of-the-art wash plant which is also capable of safely treating contaminated/hazardous soils;
 - Expand the list of wastes that can be accepted to the Site for storage and treatment including contaminated soils;
 - Allow wastes containing asbestos for secure storage only within the asbestos storage compound;
 - Increase the annual throughput to 350,000 tonnes per annum for which the Site has adequate capacity, and
 - Make changes to the Site layout, drainage and infrastructure to accommodate these changes.
- 1.1.5 This Operating Techniques document outlines the approach to be undertaken for managing the process on Site for the receipt and acceptance of waste, waste treatment and processing, waste storage and offtake of wastes and soil/aggregates.
- 1.1.6 The operations on Site will be in accordance with Environment Agency Guidance *Non-Hazardous and Inert Waste: Appropriate Measures for Permitted Facilities*, and *Sector Guidance Note S5.06: Recovery and Disposal of Hazardous and Non-Hazardous Waste*. This application fulfils requirements that are set out within the guidance. The following are included:

- An up-to-date management system is provided and a summary is included in the application;
- A description of the Site within its setting is provided in the Site Condition Report;
- A list of permitted materials is provided in Section 4;
- Details of material pre-acceptance and acceptance procedures, including procedure for dealing with non-conforming wastes, are presented in Section 4;
- Details of the potential hazards and receptors at the Site are provided within the Accident and Amenity Risk Assessment;
- A description of the mitigation measures to ensure the control of dust, mud and other particulate debris are provided in the Dust Emissions Management Plan.

1.1.7 The intention is to bring in some wastes which are potentially contaminated, for example from brownfield Sites. These wastes may be classified as hazardous waste and therefore the variation application includes the addition of hazardous waste streams and updates the permit to include physico-chemical treatment of hazardous waste. A Best Available Techniques Assessment for the treatment of Hazardous waste has been included as part of the application. Further detail on the wastes to be treated through the wash plant is provided in Section 3.

1.1.8 The operation will be managed in accordance with RIG's Environmental Management System, which contains details and working instructions for personnel to follow, ensuring good environmental practice, safe systems of work, requirements of record keeping and continuous improvement.

2 PERMITTED ACTIVITIES

- 2.1.1 The permitted activities will be limited to physico-chemical treatment of inert, non-hazardous and potentially contaminated wastes. Treatment comprises soil, aggregate and stone washing and separation and storage of wastes, pending treatment activities.
- 2.1.2 The tonnage is proposed to increase to 350,000 tonnes per year, with up to 10,000 tonnes of waste to be stored on Site at any one time. Of the 10,000 tonne storage capacity, it is expected that up to 1,000 tonnes of the waste will be classified as hazardous waste. Hazardous waste will be stored separately in a suitably designed covered compound, as detailed in Section 6.
- 2.1.3 Table 2.1 below sets out the listed activities, the Directly Associated Activities for the listed activities and the waste activities to be added to the permit.

Table 2.1 Permitted Site Activities		
Listed Activities		
Listed Activity (EPR 2016)	Activity Description	Waste Framework Directive Classification
Section 5.3 Part A(1) (A) (ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment	Recovery of hazardous waste with a capacity exceeding 1,000 tonnes per day involving physico-chemical treatment	R3 Recycling/reclamation or organic substances which are not used as solvents (including composting and transformation processes). R5 Recycling/reclamation of other inorganic materials
Section 5.6 Part A(1) (a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Section 5.3	Temporary storage of up to 1,000 tonnes at any one time of hazardous waste pending treatment for recovery	R13 Storage of waste pending any of the operations number R1 to R12 (excluding temporary storage, pending collection, on the Site where the waste is produced)
Directly Associated Activities		
Processed soil storage	Storage of soil and aggregates post treatment	
Process water treatment and storage	Storage of hazardous soil washing water, reuse within the wash plant, and removal off Site for recovery or disposal.	
Surface water collection and storage	Collection and storage of surface water including reuse within the wash plant and removal off Site for recovery or disposal	
Storage and use of raw materials	Storage and use of raw materials including materials used to operate Site plant and plant maintenance	
Waste Operations		
Waste Activity	Activity Description	Waste Framework Directive Classification
Treatment of non-hazardous and inert waste for the purpose of producing soils and aggregates	Physico-chemical treatment (sorting, separation, screening, washing)	R3 Recycling/reclamation or organic substances which are not used as solvents (including composting and transformation processes). R5 Recycling/reclamation of other inorganic materials

2.1.4 The permit already allows for the storage of non-hazardous and inert wastes.

2.1.5 The list of wastes to be processed through the wash plant, according to their European Waste Catalogue (EWC) code is provided in Section 4 of this report.

3 PERMITTED WASTES

3.1 Permitted Waste

3.1.1 The facility will continue to accept soils and stones with some glass, brick, tile and concrete. That is, selected excavation and demolition materials suitable for processing into secondary aggregate for sale into the construction industry.

3.1.2 RIG are also seeking to add asbestos to their permit, for the purposes of secure storage and transfer only. The European Waste Catalogue (EWC) codes for asbestos transfer are provided in Table 4.1 below.

Table 4.1: Asbestos Waste Storage	
Waste Code	Waste Description
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 06	Insulation materials and asbestos-containing construction materials
17 06 01*	Insulation materials containing asbestos
17 06 05*	Construction materials containing asbestos

3.1.3 RIG are seeking to expand the list of wastes to be accepted for treatment, in order for potentially contaminated wastes from brownfield Sites, which may contain contaminants at sufficient levels to require them to be classified as hazardous waste, to be treated.

3.1.4 The European Waste Catalogue (EWC) codes of the wastes to be treated at the soil washing facility are given in Table 4.1 below.

Table 4.2: Waste Types for Physico-chemical Treatment and Associated Storage

Waste Code	Waste Description
01	Wastes resulting from Exploration, Mining, Quarrying and Physical and Chemical Treatment of Minerals
01 01	Wastes from mineral excavation
01 01 01	Wastes from mineral metalliferous excavation
01 01 02	Wastes from mineral non-metalliferous excavation
01 03	Wastes from physical and chemical processing of metalliferous minerals
01 03 06	Tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 07*	Other wastes containing hazardous substances from physical and chemical processing of metalliferous minerals
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 07*	wastes containing hazardous substances from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
01 04 10	Dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	Wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	Tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	Wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 04	Wastes from sugar processing
02 04 01	Soil from cleaning and washing beet
10	WASTES FROM THERMAL PROCESSES
10 02	Wastes from the iron and steel industry

Table 4.2: Waste Types for Physico-chemical Treatment and Associated Storage

Waste Code	Waste Description
10 02 01	Wastes from the processing of slag
10 11	Wastes from the manufacture of glass and glass products
10 11 12	Waste glass other than those mentioned in 10 11 11
10 12	Wastes from the manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	Waste ceramics, bricks, tiles and construction products after thermal processing
10 13	Wastes from the manufacture of cement, lime and plaster and articles and products made from them.
10 13 14	Waste concrete only
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging
15 01 07	Glass packaging
17	Construction and demolition wastes (including excavated soil from contaminated Sites)
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	Wood, glass and plastic
17 02 02	Glass
17 05	Soil (including excavated soil from contaminated Sites), stones and dredging spoil
17 05 03*	Soil and stones containing hazardous substances

Table 4.2: Waste Types for Physico-chemical Treatment and Associated Storage	
Waste Code	Waste Description
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 05*	Dredging spoil containing hazardous substances
17 05 06	Dredging spoil other than those mentioned in 17 05 05
17 05 07*	Track ballast containing hazardous substances
17 05 08	Track ballast other than those mentioned in 17 05 07
17 09	Other construction and demolition wastes
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 (restricted to mixed loads containing soil and stones, concrete, bricks, glass, tiles and ceramics only)
19	Wastes from waste management facilities, off-Site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	Wastes from incineration or pyrolysis of waste
19 01 11*	Bottom ash and slag containing hazardous substances
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 12	Wastes from mechanical treatment of waste
19 12 05	Glass
19 12 09	Minerals (for example sand, stones)
19 12 12	Other wastes (including mixtures of wastes) from mechanical treatment of waste other than those mentioned in 19 12 11 (silt and grit)
19 13	Wastes from soil and groundwater remediation
19 13 01*	Solid waste from soil remediation containing hazardous substances
19 13 02	Solid waste from soil remediation other than those mentioned in 19 13 01
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 02	Garden and park waste (including cemetery waste)

Table 4.2: Waste Types for Physico-chemical Treatment and Associated Storage

Waste Code	Waste Description
20 02 02	Soil and stones
20 03	Other municipal wastes
20 03 03	Street cleaning residues (solids only)

4 WASTE PRE-ACCEPTANCE

4.1.1 Waste Acceptance Procedures will be implemented to ensure that enough information about the waste has been obtained prior to arrival at the Site. At the pre-acceptance stage information about the source and nature of the waste, potential risk to process safety and the environment and knowledge about the previous waste holder(s) will be sought.

4.1.2 The pre-acceptance procedures are set out below.

4.1.3 For commercial and industrial waste, the following information must be obtained in writing or electronic form:

- Details of the waste producer including their organisation name, address and contact details,
- A description of the waste,
- The EWC code,
- Information on the nature and variability of the waste production process,
- Information about the history of the producer Site if it may be relevant to the classification of the waste (e.g. soils arising from Site contaminated by previous industrial use),
- The wastes physical form,
- The waste composition (based on representative samples if necessary),
- A description of the waste's odour if detectable.

4.1.4 All waste will be subject to pre-acceptance checks and in addition to falling within the waste types set out in Table 4.2. The waste will be classified as either non-hazardous or hazardous by the waste producer, and the pre-acceptance documentation will provide evidence to support this classification.

4.2 **Waste acceptance and control**

4.2.1 Waste will only be accepted when the Site is adequately manned allowing for acceptance checks and controlled receipt, storage and treatment of the material.

4.2.2 All loads will be accompanied by a waste transfer note including the relevant information, or consignment note where applicable. On arrival at Site this will be checked against the pre-acceptance information and a visual inspection will be made to ensure the waste is as expected.

4.2.3 Site Operatives will be suitably trained and, dependent upon the range of their individual responsibilities, will be fully conversant with the requirements of the relevant conditions of the Permit with regard to waste acceptance and waste rejection procedures at the Site. A copy of the environmental permit will be held on Site for reference and on the company's management system to allow reference at all times.

4.2.4 All wastes for recovery at the Site are to be described adequately (by the producer) and in a way to allow the Site to deal with the waste in a way that will not cause pollution of the environment, and for the waste to be correctly stored in either the hazardous waste compound or stockpiled on site where applicable.

4.2.5 Pre-acceptance and acceptance documentation will be made available for inspection by authorised officers of the Environment Agency on request.

4.3 **Procedure for Dealing with Non-Conforming Wastes**

4.3.1 Where appropriate, non-conforming wastes will either be returned to the producer/previous holder in the first instance or where this is not possible or appropriate, re-directed to an appropriately permitted facility. Where it is not possible to directly reject a waste load, it will be removed to an on-Site quarantine area for temporary storage prior to off-Site removal to a permitted facility as soon as is practicable.

4.3.2 Wastes, that are found not to conform with permitted waste types in Table 4.1 and 4.2, will be dealt with according to the following procedures:

- Referral to a suitable competent person;
- Referral to the material producer or the material carrier's base, to confirm the nature of the load;
- Wherever possible reload onto the delivery vehicle for off Site removal;
- Immediate notification to the Environment Agency;
- Where it is not possible to reload the material onto the delivery vehicle, isolation of waste in the quarantine area for temporary storage prior to off-Site removal to the waste producer or a suitably permitted facility within 5 days or receipt.
- All incidents of rejected loads will be recorded in the Site log, by filling in a Waste Rejection Form. A copy of this form to be forwarded in due course to the Environment Agency.

4.3.3 The permitted waste codes to be accepted on Site will be stored in stockpiles. The wastes accepted, whilst of a granular nature, are unlikely to pose a significant risk to surface or groundwater at the Site. Many wastes will be inert in nature, whilst others will be classed as non-hazardous. All wastes will be stored on concrete hardstanding, meaning there is limited potential for leachate infiltration to the land beneath the Site. Waste storage areas are shown on drawing [NT16545-001].

5 HAZARDOUS WASTE STORAGE

5.1 Hazardous Waste for Treatment for Recovery

5.1.1 The Site has a dedicated hazardous waste storage area, which is a three sided roofed structure, preventing the ingress of rain and providing shelter from the wind. Appendix 1 provides the proposed layout and design of the hazardous waste storage building.

5.1.2 The area has impermeable surfacing with falls towards a sealed drainage system.

5.1.3 Any run-off from the stockpiles will be collected by a cut off drain and directed to a sump. A speed bump/sleeping policeman is located along the open aperture of the area, providing additional containment.

5.1.4 The hazardous waste storage provisions will ensure that any leachate run off from this compound does not contaminate the wider site surface water management systems, which are described in further detail in Section 9.

5.2 Wastes Containing Asbestos for Storage Only

5.2.1 Wastes containing asbestos will be directed to the asbestos storage compound which is a 39m² fully bunded area with an integral sump.

5.2.2 A total of 24.4m³ of asbestos will be stored at any one time, in two fabricated steel enclosed sealed containers. The compound is secured with 2m high palisade fencing and gates.

5.2.3 A submersible pump will be situated within the sump coupled to an industry standard filter system identical to a decontamination unit set up. Any potentially contaminated water is captured and removed off-site to a suitably licenced facility.

5.2.4 Appendix 2 provides the proposed layout of asbestos storage compound.

6 SOIL WASHING PROCESS

- 6.1.1 This section provides an overview of the treatment process and the material flow through the washing facility. A schematic providing the steps and phases of the plant, processing steps and outputs is provided in Appendix 3.
- 6.1.2 The processing of materials through the plant comprises a series of steps and different elements of the plant.
- 6.1.3 The four key sections of plant are; rinsing screen, sand plant, attrition scrubber and water treatment. These sections of plant are linked through a series of pumps and conveyors to transfer liquids and solids around the plant.

6.2 Rinsing Screen

- 6.2.1 Initially, soils and stones are fed into the plant via mobile plant.
- 6.2.2 Any oversized materials are either stockpiled pending crushing or are crushed immediately prior to being fed into the plant, to ensure the feed size is suitable.
- 6.2.3 The fines are fed directly from the conveyor onto the scaling screen and into the hopper to regulate the feed rate into the wash plant.
- 6.2.4 Material travels up to a boiling box located at the top of the first conveyor, which fluidises the material as it feeds onto an aggregate screen. This screen is utilised to provide a fluidising deck.
- 6.2.5 Course sand is screened through aggregate screen 3, and fine sand screened through aggregate screen 2.

Fines

- 6.2.6 The fine sand that passes through aggregate screen 2 falls into a sump 3 before being pumped into pre-wash tank 1. The pre-wash tank has water injection points to help float off organics, lightweights such as plastics, silts and clays. The overflow from pre-wash tank 1 either gets pumped straight to the trash screen before the thickener (dewatering tank 4) or goes back to the prewash for further sand recovery, depending on the feed material.
- 6.2.7 The underflow from pre-wash 1 gets pumped to cyclone 2. The underflow from cyclone 2 falls onto dewatering screen 2 where water is removed through elongated pipes and recirculated back to pre-wash 1.

6.2.8 The sand generated on dewatering screen 2 passes onto conveyor 6 for transfer to a stockpile.

Course

6.2.9 Course sand is screened through aggregate screen 3, the sand that falls through is collected in sump 2, before being pumped by pump 2 to cyclone 1. The overflow from cyclone 1 then repeats the same process as for the fines, that is the overflow from pre-wash tank 1 either gets pumped straight to the trash screen before the thickener (dewatering screen 4) or goes back to the prewash for further sand recovery, depending on the feed material.

6.2.10 The underflow from pre-wash 1 gets pumped to cyclone 2. The underflow from cyclone 2 falls onto dewatering screen 2 where water is removed through elongated PU modules sent back to pre-wash 1.

6.2.11 The sand generated on dewatering screen 1 passes onto conveyor 5 for transfer to a stockpile.

6.2.12 The course aggregate that passes over aggregate screens 2 and 3 passes onto a conveyor for the transfer to the attrition scrubbing part of the plant.

6.2.13 The coarse aggregate falls into the base of a log washer where it is subject to attrition, where the paddles inside the machine liberate the coarse particles from the float off organics, lightweights such as plastics, silts and clays, which are then floated out of the washer itself over a weir.

6.2.14 The water and floated off organics and lightweights are passed over dewatering screen 3 with elongated PI modules fitted.

6.2.15 The underflow falls into sump 3 before being pumped back into sump 2 via pump 4.

6.2.16 The material that passes over dewatering screen 3 is stockpiled for disposal.

6.2.17 The coarse aggregate that has passes through log washer 1 is screened into aggregate via aggregate screen 4 and passed onto conveyors 7, 8, 9. Aggregate screen 4 has a split bottom deck to allow material <5mm in size to be pumped back to the sump under the log washer for return to the sand plant.

6.2.18 All aggregate and sands are now cleaned and recovered and are moved to the dedicated aggregate storage bays which are specifically arranged to enable each grade of material to be separately stored pending removal from Site.

Waste Water and Filter Press Cakes

- 6.2.19 All wastewater generated passes to dewatering screen 4, and any remaining organics, lightweights (for example, plastics) are removed on this screen.
- 6.2.20 The underflow from dewatering screen 4 falls into sump 4 for pumping by pump 5 to thickener tank 1.
- 6.2.21 The thickener tank 1 is also fed by flocculant dosing unit 1 with a flocculant mix to help with the settling rate of particles.
- 6.2.22 Overflow from thickener tank 1 gets returned to WT1 for reuse within the plant.
- 6.2.23 The underflow from TT1 is pumped by pump 7 and split to fill two holding tanks, which then pump to FP1 and FP2 by pumps 8 and 9 respectively.
- 6.2.24 The filtrate water from filter presses 1 2 free falls to F11, which is in turn pumped back to thickener tank 1 for further treatment as per section 5.1.18, that is a flocculant is added to aid the settling rate of particles.
- 6.2.25 High pressure plates squeeze the sludge to remove excess water to produce a dry filter cake output.
- 6.2.26 The filter press cakes are stockpiled for reuse or disposal.
- 6.2.27 Pumps 11, 12 and 13 pump water from WT1 back into the plant.

7 OUTGOING MATERIALS

- 7.1.1 The wash plant will produce sands and aggregates of a consistent quality and size which can be sold into the construction market.
- 7.1.2 It is likely that any contamination will be associated with the fines and will be transferred to the filter cake.
- 7.1.3 The filter cake will be tested at a frequency of one sample per 500 tonnes for the first three months of operation. Samples will be submitted to an accredited laboratory to determine whether they should be classed as hazardous or non-hazardous waste, following the guidance in WM3.
- 7.1.4 Thereafter the results will be reviewed to determine whether the classification of this waste stream is consistent. Should results show the results are reasonably consistent the frequency of testing will be reduced to one sample per 5,000 tonnes of material. Following the first twelve months the results will be reviewed again and testing may be dropped to once every twelve months if the results are consistent. If the waste is very variable a higher frequency of testing will be agreed with the Environment Agency.
- 7.1.5 Following testing the filter cake will be sent for recycling or disposal, as appropriate based on the classification. There is potential for the fines to be made into blocks.

8 SURFACE WATER MANAGEMENT AND DRAINAGE

8.1 Surface Water Management and Drainage

8.1.1 To ensure the containment of process waters and surface waters and to prevent contaminated surface water discharging from the Site, RIG have designed a new drainage system. The system has been designed to safely recirculate water back into the system, and there will be no discharge of hazardous waste wash waters.

8.1.2 It is proposed that two attenuation basins be installed, one for the inert waste surface water and one for surface water that may have been in contact with hazardous waste, depending on which cycle (hazardous or non-hazardous) the wash plant will be running on. The location and design of the basins is shown on drawing NT16773-003, and are described in more detail in turn below.

8.1.3 In both instances, water will be pumped from the re-circulation chamber to the interceptor from where it will be directed to either the non-hazardous wash water lagoon or to the attenuation basin for the hazardous wash water.

Management of Contaminated Surface Water

8.1.4 The attenuation basin to collect surface water which may have been in contact with hazardous waste is shown on drawing NT16773-003 in orange, and is located in the northeast corner of the Site, adjacent to the wash plant pad.

8.1.5 During the hazardous waste treatment cycle of the wash plant, any surface water from the concrete pad will be directed to the lagoon described in 8.1.4.

8.1.6 When the plan is not operational (e.g. switched off overnight), surface water will be directed to the lagoon to the south of the site as described in section 8.1.12 below, as the runoff will be uncontaminated as it will not have come into contact with the hazardous waste.

8.1.7 The attenuation basin will be lined with an engineered clay liner or a similar suitable impermeable material. Material used to construct the liner will be tested for permeability to ensure it provides adequate impermeability. The liner will be constructed with Construction Quality Assurance (CQA), a written CQA plan will be approved by a suitably qualified CQA engineer and the plan will be submitted to the Environment Agency for approval prior to the construction works commencing.

- 8.1.8 The basin has been sized as approximately 500m³. A nominal depth of 1m of water will be maintained as a maximum to allow for pumping back into the wash plant process. Additional storage, above the nominal 1m depth has been allowed for the design of the basin to accommodate the critical 1 in 100 year and climate change storm event. The capacity of the basin and design is further detailed on drawing NT16773-005.
- 8.1.9 Water from the concrete pad will flow via the interceptor into the lagoon.
- 8.1.10 Water from the lagoon can be pumped back into the wash plant process or, where the lagoon is at risk of overflowing, can be pumped out to a tanker for off-site disposal at a permitted site.
- 8.1.11 Penstock gates/ valves will be installed at the outfalls to the interceptor. During washing of inert wastes the gate will be open to allow flow of water into the attenuation lagoon for clean water, and during washing of hazardous wastes that gate will be closed and water will be directed to the hazardous water lagoon.

Management of Uncontaminated Surface Water

- 8.1.12 The attenuation basin to the south of the Site, shown in blue on drawing NT16773-003 will be used for run-off from inert waste storage and treatment. This basin will serve the hardstanding area of the Site and uncontaminated run off from the wash plant. This basin is sized at 1,350m³ to accommodate the critical 1 in 100 year and climate change storm events.
- 8.1.13 The basin has a stand off distance of 10m from the wash plant pad, and the hazardous waste storage compound has separate infrastructure, to ensure there will not be cross contamination of contaminants to the clean surface water/leachate.
- 8.1.14 Clean water will discharge to an open ditch from the basin via a hydrobrake to restrict the flow to 4.5l/s. The direction of the flow of the discharge and the discharge point to ground is via an existing open ditch is shown on drawing NT16773-001.

9 USE AND STORAGE OF RAW MATERIALS

9.1.1 RIG's intention is to recycle waste in a clean and effective manner, and raw materials will be restricted to the use of fuels to operate site plant, oils/lubricants for plant maintenance and flocculant to be added to the wash plant process. The wash plant will require a supply of water, and further details of the water use is provided in the Best Available Techniques Assessment.

9.2 Fuel to operate Site plant

9.2.1 Diesel will be stored on Site in a 12,800 litre tank. The outer container bund will be in excess of 110% capacity of the inner container. The tank will comply to the current EU Environmental Regulations for accidental spillage elimination. Fill points will be located inside the bund.

9.2.2 Where diesel is delivered to Site the capacity remaining in the tank will be checked before unloading begins. The delivery will be supervised so that any leaks or spills are detected immediately and mitigation can be put in place.

9.3 Lubricating Oils/Oils for Plant Maintenance

9.3.1 It is anticipated that approximately 200 litres of greases and lubricating oils will be stored on Site, which will be stored in drums on a drip tray to prevent leaks and spills contacting the ground.

9.4 Flocculant

9.4.1 Flocculant which will be used in the wash plant process to aid in the settlement process will be stored in suitable containers and will be dosed into the plant as required. It is anticipated that approximately 500 litres of flocculant will be stored on Site to ensure there is adequate supply to ensure continuous operation of the plant.

10 SITE MANAGEMENT

- 10.1.1 The Site will be operated in accordance with the RIG's Environmental Management System, including management plans and assessments which have been prepared as part of this variation application.
- 10.1.2 The Site operations will be under the control of a Technically Competent Manager who holds the appropriate WAMITAB certification, which have been provided as part of the variation application documentation. The TCM will attend Site at a frequency in compliance with the Environment Agency's requirements for Site attendance. In accordance with the guidance this is equivalent to at least 20% of operational hours during the first six months of Site operations.
- 10.1.3 During operation at the Site will be supervised at all times. Personnel will be responsible for waste reception inputs, outputs, and overall operation of the plant.
- 10.1.4 There will be scheduled frequent maintenance tests of the soil washing facility and all plant and equipment on Site.

11 RECORD KEEPING AND CONTROL OF AMENITY ISSUES

11.1 General

11.1.1 The Site will be inspected on a regular basis with staff carrying out a visual and olfactory assessment around the Site boundary to check for fugitive emissions of litter, odour, dust, mud and noise.

11.1.2 Full details of the risk to amenity are provided in the Amenity, Accident and Habitats Risk Assessment as provided as part of the permit variation application.

11.2 Litter

11.2.1 Should any litter be noted this will be collected and placed in the skip provided for light waste. Wastes are predominantly soils, stone, brick, tile and concrete. It is unlikely that any significant light waste will be present and litter is not expected to be an issue.

11.2.2 Any litter generated by RIG staff will be collected and placed into a suitable receptacle pending off site removal.

11.3 Odour

11.3.1 In terms of odour the materials to be processed through the Site are not inherently odorous and are not expected to generate any significant odour. Should odour be detected the source will be investigated and measures will be put in place to resolve the issue. If any particular waste stream is causing an odour problem, discussions will take place with the waste producer to resolve the issue at source. Where no resolution is found, that particular waste stream will be banned from the Site to prevent further issues.

11.4 Dust

11.4.1 The wash process means that fines will be entrained in the process water and are unlikely to be emitted to air.

11.4.2 Stockpiles of potentially dusty materials will be stored on Site, and during dry windy weather there is potential that dust may be entrained in the wind. Daily inspections will be made and the Site entrance and yard area will be swept as necessary to minimise issues. Materials will be stored in dedicated bays or stockpiles and the Site will be kept tidy.

11.4.3 Further detail on mitigation of dust arising from Site processes is provided in the Dust Management Plan.

11.5 Mud

11.5.1 The Site entrance will be swept at regular intervals to prevent any build-up of mud. Vehicles will be inspected before leaving the Site and will be cleaned if necessary to prevent mud being tracked onto the highway.

11.5.2 Should significant quantities of mud be tracked out of the Site, this will be swept as soon as possible by a mechanical sweeper.

11.6 Noise

11.6.1 The nearest residential receptor is approximately 250m away from the Site. Operations will be restricted to day time hours to minimise disturbance at night. The Site will comply with planning conditions relating to noise levels.

11.6.2 All plant and equipment will be maintained in accordance with manufacturer's recommendations.

11.6.3 Drop heights will be minimised where possible and double handling of materials avoided as far as possible.

11.6.4 Noise levels will be taken into consideration when selecting site equipment, with quieter models being utilised where this is practical and economically viable.

11.6.5 Engines of delivery vehicles and site plant will be switched off when not in use to prevent any excessive noise. Plant may be fitted with engine silencers and smart reversing alarms.

11.7 Leaks and Spills

11.7.1 Plant will be regularly inspected and serviced in accordance with the manufacturer's recommendations.

11.7.2 Diesel will be stored in a 12,800 litre bunded tank, with a level sensor and vent. The outer container bunding will be in excess of 110% capacity of the inner container. Filling points and hoses will be located inside the bunding. The level of the liquid inside the tanks will be checked before filling to avoid over filling.

11.7.3 Deliveries and fuelling will be supervised to ensure any leaks and spillages are detected immediately, contained, and remedied using the spill kits available on Site.

11.7.4 Any spills occurring on Site will be contained, cleaned up and recorded as soon as is practicably possible. The incidents on Site will be reviewed as part of the ongoing commitment to improvement of the Management Systems, with analysis carried out to determine the cause of any incident and ensure there is no repeat wherever possible.

12 RECORD KEEPING AND COMPLAINTS

12.1.1 The records described below will be maintained at the Site office and will be made available to warranted officers of the Environment Agency upon request.

12.1.2 Records will be kept and maintained either in electronic or hard copy format of the following:

- details of waste enquiries and pre-acceptance information;
- copies of all material transfer notes for incoming and outgoing materials;
- details of any rejected loads;
- copies of the analysis of materials where required; and
- results of any environmental monitoring.

12.1.3 Should any incident have the potential to cause significant emissions the Environment Agency will be informed by telephone and remedial action will be agreed with the local environment officer.

12.2 A log will be kept and maintained detailing any complaints received and actions taken to resolve them.

12.3 Records will also be kept regarding staff training, including any refresher training.

12.4 Records will be kept for a minimum of two years and in line with any statutory requirements. Records of any pollution incidents, should one occur, will be maintained indefinitely in order to inform any eventual permit surrender application.

13 SITE CLOSURE PLAN

- 13.1.1 The Site Closure Plan has been developed to ensure that the site will be safely decommissioned without causing pollution or harm and the Site is returned to a satisfactory state, this is, a similar condition to that which existed prior to permit issue.
- 13.1.2 All raw materials will be removed from the Site in an appropriate manner. Where possible these will be returned to the supplier, possibly under a sale or return agreement, otherwise they will be sent for reuse for recycling at a suitably permitted facility.
- 13.1.3 Where possible, all waste materials will be processed through the plant and removed from the Site for recovery. All remaining wastes will be removed from the site and will be recycled or disposed of in accordance with the requirements of the Waste (England and Wales) Regulations 2011, or the relevant waste legislation at the time of decommissioning.
- 13.1.4 Appropriate contingency plans will be in operation in case of any spillage/leak or fire. All process plant will be emptied and if necessary, cleaned prior to dismantling to minimise the potential for fugitive emissions.
- 13.1.5 It is important that the drainage provisions are removed at the final stage of decommissioning, such that cleaning and other drainage water generated during the decommissioning process can be managed.
- 13.1.6 Soil samples will be undertaken, if appropriate, so that the condition of the site at decommissioning can be compared to that at commencement of the facility. However, inspection and maintenance of the concrete surfacing at the site will be the main mechanism for ensuring no pollution occurs and where records show high standards of containment throughout the life of the site sampling may not be necessary.
- 13.1.7 The methodology used in decommissioning process plant, conveyors, pipework and other structures will minimise the impact of:
- noise;
 - odour; and
 - disturbance to the environment.
- 13.1.8 Protection of the environment will be a priority and no risk to air, land, water or human health will be experienced during closure and decommissioning of the site, which will be subject to the Environmental Management System requirements.

APPENDICES

APPENDIX 1

APPENDIX 2

APPENDIX 3

DRAWINGS

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